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1. S. Wade.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF ENTOMOLOGY.

NEWS-LETTER

OF

THE

OFFICE OF CEREAL AND FORAGE INSECT

INVESTIGATIONS.

Volume I,

No. 4,

July 1,

1913.

As stated in the first, or April number of the News-Letter, its object is to bring the continually increasing number of people engaged in cereal and forage insect investigations into closer touch with one another and to keep the individual informed, in a general way, of what is being done by the combined force. Thus the reason for the existence of the News-Letter is to combine and solidify the division, for it is upon this that the successful carrying out of so

many diverse investigations must largely rest.

In the beginning applied entomology consisted merely in the treatment of garden plants with soot, ashes, lime, or perhaps white hellebore, affording relief only to the gardener. The spread of the Colorado potato beetle eastward from the West probably did much to bring to the front the application of Paris green as an insecticide, but still its use was confinned largely to the truck farmer and gardener. To the grower of grains and forage crops all of this afforded no relief whatever. Still later, the work on the cotton worm of the South brought into practical use the preparation and application of kerosene emulsion. Still the grower of grains and grasses found no relief. A little later began the spraying of trees and shrubs, which, while it opened up an almost new era for the fruit grower, still left the ordinary farmer with his problems of insect control practically unsolved.

Before the advent of experiment stations and even for some time afterward, letters addressed to the members of university faculties complaining of the ravages of insects and asking relief brought the actual farmer little consolation. The replies he received to his appeals for relief were usually couched in terms to which he was unused and much of the text of these replies in a language that he did not understand. Moreover, the replies were usually penned by men who had little or no practical knowledge of agriculture, and thus there grew up between the two not only a continually widening breach but in warr cases an absolutely intolerant feeling on the part of

each for the other.

Perhaps nothing better illustrates the changed condition and rapid growth of agriculture as a science than the immense strides made by economic entomology as applied over and throughout the broad acres of the ordinary farmer. At the present time, instead of receiving a stereotyped reply to his applications for relief, when he applies as an individual, or for his neighborhood, to the Department of Agriculture, either directly, or, as is becoming every day more and more frequent, through his Representative in Congress, he is very often surprised when, within two or three days after the receipt of his complaint, there appears in his neighbor-

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On July 1, 1904, the writer was the sole member of the section, Messrs. Geo. I. Reeves and W. J. Phillips being appointed a few months later, and the expenditures for the fiscal year 1904-

1905 were some \$6,000.

FISCAL YEAR 1913-1914.
PERSONNEL OF THE STAFF OF CEREAL AND
FORAGE INSECT INVESTIGATIONS.
F. M. Webster (Ill.), in charge.

OFFICE.

W. R. Walton (Pa.), Margaret Marshall (Va.), Hattie M. Wilson (Minn.), Thos. F. Mahan (Mass.).

TECHNO-BIOLOGICAL

A. B. Gahan (Md.), J. M. Aldrich (S. Dak.).

J. T. Monell (Mo.)

LAFAYETTE, INDIANA, FIELD STATION. W. J. Phillips (Va.), in charge.

J. J. Davis (111.),

Henry Fox (Pa.),

A. F. Satterthwait (Pa.).

WELLINGTON, KANSAS, FIELD STATION. E. O. G. Kelly (Ky.), in charge.

Harrison E. Smith (Mass.),

W. E. Pennington (Md.).

e (kans.).

CHARLESTON, MISSOURI, SUB-STATION.

Vernon King (Canada).

BROWNSVILLE, TEXAS, FIELD STATION. R. A. Vickery (Minn.), in charge.

Claud L. Scott (Okla.),

O. W. Rosewall (Iowa).

G. G. Ainslie (Minn.), in charge.

W. H. Earrimer (Ohio).

TEMPE, ARIZ., FIELD STATION. R. N. Wilson (Colo.), in charge.

T. Scott Wilson (Kans.),

J. H. Newton (Ariz.).

SALT LAKE CITY, UTAH, FIELD STATION. Geo. I. Reeves (Ill.), in charge.

C. W. Creel (Nev.), Philip B. Miles (Co H. R. Jennings (Kans.),

Thomas R. Chamberlin (Utah),

Decle Bonnion (Htah)

R. J. Kewley (Utah),

Mattie Dyer (Utah), stenographer.

SALT LAKE CITY, UTAH, SUB-STATION. P. H. Timberlake (N. H.), in charge.

L. P. Rockwood (Conn.),

W. R. Thompson (Canada). (In Europe.)

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HAGERSTOWN, MD., FIELD STATION. J. A. Hyslop (N. J.), in charge.

C. M. Packard (Mass.).

COLUMBIA, S. C., FIELD STATION.
Philip Luginbill (Ohio), in charge.

GREENWOOD, MISS., FIELD STATION. W. R. McConnell (Pa.), in charge.

Edmond H. Gibson (Mich.):

ELK POINT, S. DAK., FIELD STATION. C. N. Ainslie (Minn.), in charge.

E. J. Bashe (Iowa).

GLENDALE, CAL., FIELD STATION. T. D. Urbahns (Colo.), in charge.

KOEHLER, N. MEX., FIELD STATION. V. L. Wildermuth (Ohio), in charge.

Donald J. Caffrey (Conn.), Guy E. Pitts (Okla.), W. F. Schlupp (Ohio), J. R. Sandige (Ariz.), F. H. Gates (Colo.), Irving R. Crawford (S. Dak.).

COLLABORATORS.

Chas. J. Petty (Wis.).

W. B. Hall (Ohio).

Geo. G. Ainslie has returned from his investigations of the fall army worm in Florida to resume his duties at his field station, Nashville, Tenn.

Monsieur A. Vuillet, Preparateur a la Station Entomologique de Paris, has given a 13-page review of Bulletin 110, on Toxoptera graminum, in Bulletin de la Societe d'Etude et de Vulgarisation de la Zoologie Agricole, under the title "Le Puceron des Cersales et ses Invasions Aux Etats-Unis."

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H. M. Russell has been transferred from the cereal and forage insect investigations to truck crop investigations.

The range caterpillar investigations have been commenced under somewhat unusual circumstances. Rains occurred during twenty out of the first twenty-two days, washing out railway bridges and destroying telegraph and telephone lines. This, too, is an arid country.

P. H. Timberlake, charged with the management and work of developing and distributing introduced parasites of the alfalfa weevil, reports under date of June 16: "We have secured specimens of Canidia "A" from parasite in the field at Murray, showing that this species has successfully passed the winter here in America. We obtained two Canidia from comparatively few Phytonomus larvae, so that the Canidia has apparently got a good start at that point."

We have received from Mr. Longfield Smith, director of the experiment station at St. Croix, Danish West Indies, specimens of the fulgorid Dicranotropis maidis, with the statement that the insect is doing a great deal of damage to maize in that locality during the present season. Mr. Smith states that he grew maize at the experiment station last year but did not notice the insects or their ravages. The species was described by the late Doctor Ashmead in 1890 from Jacksonville, Fla., where he found it also damaging corn. Our own records do not show any further injury to corn in this country.

We have received from Mr. W. Moore, lecturer in entomology at the agricultural School at Potchefstroom, South Africa, specimens of what Mr. Monell has determined as Aphis maidis. Mr. Moore states that it is found upon sorghum, maize, and grasses such as Panicum. It appears in January and is abundant for the rest of the summer. It is also abundant in the Orange River Colony and Basutoland. He reports, with specimens, which were determined by Mr. Monell as Aphis nerii, stating that this species is found on Asclepias and is abundant throughout the summer.

The same gentleman has sent us the following parasites, which have been determined by Mr. Gahan: What is probably Aphidius phorodontis, reared from the green peach aphis and also from Toxoptera and reared from the latter into the green peach aphis, and its offspring reared into the black peach aphis. The offspring of these were bred into the cabbage aphis, from which the species was again reared. The same parasite was also reared from Aphis nerii, from which it was bred into Toxoptera. Mr. Moore also reared Diseretus rapac from the cabbage aphis and from what he terms the green peach aphis on cabbage, and using unfertilized females bred it also through this same aphis into and from Toxoptera.